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| EXAMINER |
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FLEURANTIN, JEAN B

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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| Office Action Summary | Application No. 10/667,128 | Applicant(s) HINSHAW, FOSTER D. | |
| | Examiner JEAN B. FLEURANTIN | Art Unit 2162 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This is in response to Applicant(s) arguments filed on 11/13/2007.

The following is the current status of claims:

Claims 1-38 remain pending for examination.

The Terminal Disclaimer filed on 11/13/2007 has been entered.

Applicant's arguments filed 11/13/2007, with respect to claims 1-38 have been fully considered but they are not persuasive for the following reasons, see sections I (response to arguments) and II (repeated rejections).

Response to Arguments

I. Applicant's arguments start from page 10 through page 12.

Applicant's arguments with respect to claims 1-38 have been fully considered but they are not persuasive in part. Because, the prior art of record discloses the claimed limitations.

Applicant indicates, page 10, section (*Objections to the Specification*), that "*The Abstract is being amended to correct this error.*"

The arguments have been fully considered and are persuasive. Therefore, the objections have been withdrawn.

Applicant indicates, page 10, section (*Double Patenting*), that "A Terminal Disclaimer is being filed concurrently with this Amendment to disclaim any terminal part of a patent that may issue from the Application that extends beyond the expiration of U.S. Patent Applications No. 10/666,729 and 10/668,113. Accordingly, the double patenting rejection of Claims 1 is believed to be overcome."

The arguments have been fully considered and are persuasive. Therefore, the rejections have been withdrawn.

Applicant's arguments, page 11, section (*Rejection of Claims 1-38 under 35 USC 102(e)*), that "Kabra does not disclose a data processor arranged as recited in Claim 1. As stated above, Kabra describes a method of coordinating parallel execution of a query on multiple data servers. In contrast to the JPU of the present invention, however, the data servers 130 of Kabra do not operate "autonomously and asynchronously from one another." As shown in Figs. 2 and 3, Kabra uses a parallelizer 202 to create a plan for parallel execution of a data query. The plan is distributed as "segments" among data servers 130 (col. 9, lines 27-30). These segments are "executed concurrently by different data servers 130," and so "the parallelism of database system 100 is established" (col. 9, lines 16-20). Kabra only describes executing segments concurrently at the data servers 130 as above, and fails to teach or suggest the data servers 130 operating asynchronously from one another. For at least the above reasons, Kabra fails to disclose an "asymmetric data processing system" as recited in Claim 1 of the present Application."

In response to applicant's arguments, page 11, section (*Rejection of Claims 1-38 under 35 USC 102(e)*), the recitation "asymmetric data processing system" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Assuming such limitation has been given weight, it is noted that Kabra discloses the communication is between processors on a symmetric multiprocessing system, memory used as the transport vehicle; see col. 7, lines 19-26.

Further, Kabra discloses "asymmetric data processing system comprising: a first group of one or more host computers, each comprising a memory, a network interface and one or more Central Processing Units (CPUs), each host computer accepting and responding to requests to process data" (i.e., user interface, SQL queries, transforms query into extended SQL syntax and transmits to data server; see col. 9, line 66 to col. 10, line 5); "a second group of two or more Job Processing Units (JPUs), operating autonomously and asynchronously from one another, each JPU comprising of a memory, a network interface" (i.e., communicating between processors on a symmetric multiprocessing system, memory used as the transport vehicle; see col. 7, lines 19-26 & Fig. 1), "a data interface with exclusive access to one or more sources of data, and one or more general purpose CPUs" (i.e., graphical user interface that querying and updating; see col. 9, line 66 to col. 10, line 2), "each JPU in the second group being responsive to requests received from a host computer to execute jobs, the jobs containing instructions for the processing of a particular subset of data under the JPU's exclusive control" (i.e., transmitting request to the master, this client address information is globally unique and includes the client address and port; see col. 11, lines 50-54); and "a network connecting the network interfaces within each group and between the two groups" (i.e., transmitting over network from one node to another; see col. 9, lines 31-34 and col. 7, lines 2-12 and Fig. 1).

Furthermore, the determination of whether a preamble limits a claim is made on a case-by-case basis in light of the facts in each case; there is no litmus test defining when a preamble limits the scope of a claim. *Catalina Mktg. Int'l v. Coolsavings.com, Inc.*, 289 F.3d 801, 808, 62 USPQ2d 1781, 1785 (Fed. Cir. 2002). See *id.* at 808-10, 62 USPQ2d at 1784-86 for a discussion of guideposts that have emerged from various decisions exploring the preamble's effect on claim scope, as well as a hypothetical example illustrating these principles.

"[A] claim preamble has the import that the claim as a whole suggests for it." *Bell Communications Research, Inc. v. Vitalink Communications Corp.*, 55 F.3d 615, 620, 34 USPQ2d 1816, 1820 (Fed. Cir. 1995). "If the claim preamble, when read in the context of the entire claim, recites limitations of the claim, or, if the claim preamble is necessary to give life, meaning, and vitality' to the claim, then the claim preamble should be construed as if in the balance of the claim." *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165-66 (Fed. Cir. 1999). **See MPEP 2111.02 [R-3] Effect of Preamble.**

MPEP 2111: During patent examination, the pending claims must be "given the broadest reasonable interpretation consistent with the specification" Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. *In re Prater*, 162 USPQ 541, 550-51 (CCPA 1969). The court found that applicant was advocating ... the impermissible importation of subject matter from the specification into the claim. See also *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997) (The court held that the PTO is not required, in the course of prosecution, to interpret claims in applications in the same manner as a court would interpret claims in an infringement suit. Rather, the "PTO applies to verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definition or otherwise that may be afforded by the written description contained in application's specification.").

The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. In re Cortright, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999).

For the above reasons, it is believed that the last Office Action dated 09 August 2007 was proper. Therefore, the rejection is maintained.

Claim Rejections - 35 USC § 102

II. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-38 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,507,834 issued to Kabra et al., ("Kabra").

As per claim 1, Kabra discloses "asymmetric data processing system comprising: a first group of one or more host computers, each comprising a memory, a network interface and one or more Central Processing Units (CPUs), each host computer accepting and responding to requests to process data" (i.e., user interface, SQL queries, transforms query into extended SQL syntax and transmits to data server; see col. 9, line 66 to col. 10, line 5);

"a second group of two or more Job Processing Units (JPUs), operating autonomously and asynchronously from one another, each JPU ~~consisting~~ comprising of a memory, a network interface" (i.e., communicating between processors on a symmetric multiprocessing system, memory used as the transport vehicle; see col. 7, lines 19-26 & Fig. 1), "a data interface with exclusive access to one or more sources of data, and one or more general purpose CPUs" (i.e., graphical user interface that querying and updating; see col. 9, line 66 to col. 10, line 2), "each JPU in the second group being responsive to

requests received from a host computer to execute jobs, the jobs containing instructions for the processing of a particular subset of data under the JPU's exclusive control" (i.e., transmitting request to the master, this client address information is globally unique and includes the client address and port; see col. 11, lines 50-54) ; and

"a network connecting the network interfaces within each group and between the two groups" (i.e., transmitting over network from one node to another; see col. 9, lines 31-34 and col. 7, lines 2-12 and Fig. 1).

As per claim 2, Kabra discloses "the data comprises structured records" (see col. 6, lines 54-56).

As per claims 3 and 4, Kabra discloses "the data comprises a mixture of fixed and variable length fields of various data types" (see col. 6, 54-58).

As per claims 5 and 6, Kabra discloses "the sources of data comprise one or more storage devices which are directly accessed by no other JPU in the second group and by none of the host computers in first group" (see col. 10, 49-50).

As per claims 7 and 8, Kabra discloses "autonomous operation is such that host computers in the first group do not coordinate processing across JPUs" (see col. 7, lines 19-26 & Fig. 1).

As per claim 9, Kabra discloses "in which JPUs in the second group manage the storage devices autonomously, such that they have exclusive responsibility for the mapping between the location and representation of data in memory and the location and representation of data within the storage devices" (see col. 7, lines 43-47).

As per claim 10, Kabra discloses "in which JPUs in the second group manage their associated local storage devices by performing at least one function selected from a group consisting of: storage allocation and deallocation; insertion, deletion and retrieval of records; creation and deletion and maintenance of tables, views and indices; mirroring and replication; and compression and decompression" (see col. 10, lines 60-67).

As per claim 11, Kabra discloses "in which the JPUs in the second group further comprise a storage manager component which is responsible for hiding details of storage management from other components of the JPUs" see col. 7, lines 19-26 & Fig. 1).

As per claim 12, Kabra discloses "in which the storage manager component checks requests to insert record data into a table to ensure that the record data conforms to the table's definition" (see col. 10, lines 60-67).

As per claim 13, Kabra discloses "in which the JPUs in the second group manage transactions autonomously, containing ~~operating~~ software which is responsible for at least one of ~~[[of]]~~ the following functions: starting, pre-committing, committing and aborting transactions against data on the JPU" 9 see col. 7, lines 19-26 & Fig. 1).

As per claims 14 and 16, Kabra discloses "the JPUs in the second group control concurrent access to data that is local to the JPU, containing software which is responsible for locking the local data and identifying dependencies between transactions that process local data" (see col. 7, lines 19-26).

As per claim 15, Kabra discloses "in which the JPUs in the second group perform mirroring autonomously, by ensuring that modifications to data local to a first JPU are replicated redundantly on another device" (see col. 8, lines 22-24).

As per claim 17, Kabra discloses "in which the JPUs in the second group may receive new jobs before completing older jobs, and where the resources required to satisfy jobs are scheduled locally and autonomously by the JPUs that own the resources" (see col. 9, lines 31-34).

As per claims 18-23, the limitations of claims 18-23 are similar to claims 1-6, therefore, the limitations of claims 18-23 are rejected in the analysis of claims 1-6, and these claims are rejected on that basis.

As per claim 24, Kabra discloses "each JPU in the second group further comprises a scheduling component, and each JPU processes its assigned jobs and returns results to a requesting host in the order and at the time that the scheduling component specifies" (see col. 8, lines 19-16).

As per claims 25-28, the limitations of claims 25-28 are similar to claims 29-33, therefore, the limitations of claims 25-28 are rejected in the analysis of claims 29-33, and these claims are rejected on that basis.

As per claims 29 and 30, Kabra discloses "in which the hosts in the first group are exclusively responsible for interfacing to external applications, thereby supporting the use of JPUs having different processing capabilities, without requiring changes to be made to the applications making requests" (see col. 12, lines 11-23).

As per claims 31 and 32, Kabra discloses "in which a pre-existing application that makes a request in a standard query language of the system, results in the host distributing jobs to one or more JPUs in the second group, without having to change the pre-existing application" (see col. 12, lines 25-34).

As per claim 33, Kabra discloses "in which the identity of a JPU primarily responsible for processing a given subset of data is determinable as a function of the data" (see col. 12, line 18-20).

As per claim 34, Kabra discloses "a third group of Large Job Processing Units (LJPUs), each LJPU being responsive to jobs, the LJPUs having greater memory and processing capabilities than the JPUs; and network also connects LJPUs in the third group to the computers of the other groups" (see col. 7, lines 10-19).

As per claims 35-38, the limitations of claims 35-38 are similar to claims 24 and 34, therefore, the limitations of claims 35-38 are rejected in the analysis of claims 24 and 34, and these claims are rejected on that basis.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

CONTACT INFORMATION

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEAN B. FLEURANTIN whose telephone number is 571 – 272-4035. The examiner can normally be reached on 7:05 to 4:35.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E BREENE can be reached on 571 – 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jean Bolfe Fleurantin

Primary Patent Examiner

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